

IBM

3890

IBM 3890
Document
Processor

Product Description

The 3890 is a high-speed bank processing subsystem for MICR encoded checks. It offers a 50% to 63% improvement in throughput over the IBM 1419 depending on document length.

The 3890 is a microprogram controlled machine using a 33 FD as the input device. 32K of storage is divided into 16K of control and 16K of data storage.

Customer generated stacker control instructions control the various electromechanical functions of the machine — i.e., select, endorse, item number, etc. The 3890, when viewed from the main CPU, is time independent.

The feed module contains operator setup and run panels and two document feeding stations. Normal documents are fed from the first

feed station (main hopper) and batch divider documents are fed from the second feed station (merge hopper). The main hopper has a capacity of approximately 5500 documents and contains a built-in jogger.

The sorter uses at-pocket selection to route documents to the stackers. The hopper can be loaded and emptied without stopping the machine.

Symbol error correction and image processing help reduce the overall reject rate.

The 3890 is available in 6 models:

Model 1	6 Stacker Pockets
Model 2	12 Stacker Pockets
Model 3	18 Stacker Pockets
Model 4	24 Stacker Pockets
Model 5	30 Stacker Pockets
Model 6	36 Stacker Pockets

Technology

Electronic

- Transistor-Transistor Logic (TTL)
- Solid Logic Technology (SLT)

Electromechanical

- Ink Jet (Item Numbering)
- Printed Circuit Motor (Endorser)
- Air Sensors (Document Sensing)
- Vacuum Separator (Feed Station)
- Document Jogger (Feed Station)

FE Career Path

The 3890 is an FE career path "General Systems" product.

Optional Features

Endorse and Item Numbering —

This feature permits the bank to print the date, name, and identification number on the back of the check. The eight digit item number can be imprinted on each document.

System/370 Adapter — This feature allows the 3890 to attach to the byte or block multiplex channels of System/370.

All features are field installable.

Maintenance Features

Off-Line Diagnostics — Microprogram fault locating tests and exercisers provide a diagnosis of each functional area of the 3890.

On-Line Test (OLT) — On-line diagnostic program tests channel communications.

CE/Programmer Panel — Provides a read out of registers and error logs on-line or off-line. Highlights of the panel:

- 384 information lines displayed on roller
- 70 position matrix display
- Use of high reliability light-emitting diodes
- Instantaneous roller freeze on errors
- Over 25 different testing modes or routines available
- Complete access to all of storage
- Instruction step, single cycle, looping, and simulation available
- Display of externals, local store, registers, etc. in addition to roller data
- 360° viewing of CE panel

Remote Maintenance Support — RETAIN/370 Data Bank will support the 3890 through Field Technical Support Centers (FTSC).

RAS Counters — These counters will maintain statistics on jams by location and forced rejects by type, thus enabling the CE to monitor the performance of the machine.

RAS counters have been assigned to the following conditions:

- Document Counter
- Jams by Module
- Auto Selects by Type
- Temporary Disk Read Errors
- Disk Write Errors

These counters may be retrieved from storage by either the display function on the CE panel or by using the scan microcode.

Predictor Counters — These counters monitor various components of the 3890 during normal operation for degradation or marginal performance. Predictor counters have been assigned to the following types of error conditions:

- Separator Short Gap
- Separator Long Gap
- Merge Lead
- Merge Slip
- Separator Vacuum
- Sensor Air
- Read Head Resync Slip
- Read Head Resync Lead
- Right Feed Module Resync Slip
- Right Feed Module Resync Lead
- Stacker Module Resync Slip
- Stacker Module Resync Lead
- Resync Dual Sensor Check



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